

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A control system for a vehicle, comprising:
a generating device,
a battery,
a motor electrically connected to the generating device and battery, which drives the vehicle, and
a controller which functions to:
determine a running condition of the vehicle,
compute a target motor power, which is a target value of the power of the motor, based on the vehicle running condition,
compute an available output from the battery to the motor based on the target motor power,
compute a target generated power, which is a target value of the power generated by the generating device, based on the available battery output and target motor power, and
control the generating device based on the target generated power.
2. (Original) The control system as defined in Claim 1, wherein:
the generating device comprises an engine and a generator connected to the engine, and
the controller further functions to control the rotation speed of the generator and torque of the engine based on the target generated power.
3. (Original) The control system as defined in Claim 1, wherein the controller further functions to:
compute a voltage required to obtain the target motor power, and

compute the available battery output based on the required voltage.

4. (Currently Amended) The control system as defined in Claim 3, wherein the controller further functions to compute the available battery output ~~to be smaller, the higher the required voltage becomes~~ such that the computed available battery output decreases as the required voltage increases.

5. (Currently Amended) The control system as defined in Claim 4, further comprising:

a sensor which detects a state of charge of the battery, and
the controller further functions to compute the available battery output ~~to be smaller, the lower the state of charge of the battery becomes~~ such that the computed available battery output decreases as the state of charge of the battery decreases.

6. (Currently Amended) The control system as defined in Claim 4, further comprising:

a sensor which detects a temperature of the battery, and
the controller further functions to compute the available battery output ~~to be smaller, the lower the battery temperature becomes~~ such that the computed available battery output decreases as the battery temperature decreases.

7. (Original) The control system as defined in Claim 1, wherein the controller further functions to:

compute a target battery output, which is a target value of the power output from the battery, to make the state of charge of the battery approach a target value,

compute the target generated power by subtracting the target battery output from the target motor power when the target battery output is smaller than the available battery output, and

compute the target generated power by subtracting the available battery output from the target motor power when the target battery output is larger than the available battery output.

8. (Original) A control system for a vehicle, comprising:
a generating device,
a battery,
a motor electrically connected to the generating device and battery, which drives the vehicle,
means for determining a running condition of the vehicle,
means for computing a target motor power, which is a target value of the power of the motor, based on the vehicle running condition,
means for computing an available output from the battery to the motor based on the target motor power,
means for computing a target generated power, which is a target value of the power generated by the generating device, based on the available battery output and target motor power, and
means for controlling the generating device based on the target generated power.

9. (Currently Amended) A vehicle control method used for a vehicle including a generating device, a battery, and a motor electrically connected to the generating device and battery, ~~which~~ wherein the motor drives the vehicle, the method comprising:
determining a running condition of the vehicle,
computing a target motor power, which is a target value of the power of the motor, based on the vehicle running condition,
computing an available output from the battery to the motor based on the target motor power,
computing a target generated power, which is a target value of the power generated by the generating device, based on the available battery output and target motor power, and
controlling the generating device based on the target generated power.